

CHARLES DARWIN AND INTELLIGENT DESIGN

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Many assume that Charles Darwin rejected outright the notion of intelligent design. As a consequence, the term "Darwinism" has evolved to become conflated with a dysteleological interpretation of evolution. The primary historical literature reveals that Darwin's conceptualization of design was cast within the categories of William Paley's natural theology, featuring static and perfect adaptability. Once Darwin discovered the mechanism of natural selection and the dynamic process of biological evolution, he rejected the "old argument from design in Nature" proposed by Paley. However, he was never able to ignore the powerful experience of the creation's revelatory activity. Darwin's encounter with the beauty and complexity of the world affirms a Biblical understanding of intelligent design and argues for the reality of a non-verbal revelation through nature. In a postmodern culture with epistemological foundations adrift, natural revelation provides a mooring for human felicity.

WAS CHARLES DARWIN A DARWINIST?

In his well-known The Blind Watchmaker, the inimitable Richard Dawkins affirms the experiential reality of intelligent design and the logical implication that it points to the existence of the Creator: "Our world is dominated by feats of engineering and works of art. We are entirely accustomed to the idea that complex elegance is an indicator of premeditated, crafted design. This is probably the most powerful reason for the belief, held by the vast majority of people that have ever lived, in some kind of supernatural deity The complexity of living organisms is matched by the elegant efficiency of the apparent design. If anyone doesn't agree that this amount of complex design cries out for an explanation, I give up" (1986: xiii-xvi). But the purpose of his book is to argue that this purported non-verbal revelation in nature is ultimately an illusion. According to Dawkins, Charles Darwin offered an explanation to dismiss this "most powerful reason" for believing in God. He contends that "it is as if the human brain were specifically designed to misunderstand Darwinism, and

find it hard to believe" (Dawkins 1986: xv). Consequently, Dawkins confesses, "I could not imagine being an atheist before 1859, when Darwin's Origin of Species was published Darwin made it possible to be an intellectually fulfilled atheist" (1986: 6). However, the question must be asked: Did Darwin really provide a reason for rejecting the non-verbal Divine revelation inscribed deeply into the fabric of nature? This essay examines whether Dawkins' polemic is actually dealing with the "Darwin of history," or whether he has fashioned a "Darwin idol" or "Darwin of unbelief," in order to justify his own personal struggle with the revelation graciously offered in the Book of God's Works.

Today, the term and notion of intelligent design have gained much notoriety due to the "Intelligent Design Movement" (Johnson 1991; Moreland 1994; Behe 1996; Dembski 1999). Significantly, this interpretation of design is historically quite new. It conflates the notion of intelligent design with Divine interventionist action in the origin of life. ¹ For example, in Darwin's Black Box, leading ID theorist Michael Behe coined the concept of "irreducible complexity," which argues that certain molecular structures in the cell, like the flagellum, could only have been created "as an integrated unit, in one fell swoop" (1996: 39, 227-28). Similarly, the reigning notion of intelligent design during Darwin's day was like that of the ID Movement. In Natural Theology. William Paley presented his famed watchmaker argument, claiming that "every indication of contrivance, every manifestation of design, which existed in the watch, exists in the works of nature" (1802: 71). This notion of intelligent design is both static and conflated with the notion of perfect adaptability. According to Paley, each and every detail in the world had some specifically designed purpose. As a result, there was no room for mal-adapted structures or creatures, in particular evolving ones, in God's perfectly created order.

Though the notion of intelligent design offered by Paley and ID theorists is persuasive, an appeal to Scripture provides a Biblically-based understanding of design. An examination of the primary historical literature may determine whether Darwin rejected the Scriptural notion of design or that proposed by Paley in the nineteenth century and ID theorists today.

BIBLICAL VIEW OF INTELLIGENT DESIGN

The classic passages dealing with intelligent design in the Bible are Psalm 19: 1-4 and Romans 1: 18-23. In Psalm 19: 1-4, the psalmist writes:

The heavens declare the glory of God; the skies proclaim the work of His hands. Day after day they pour forth speech; night after night they display knowledge. There is no speech or language where their voice is not heard. Their voice goes out into all the earth, their words to the ends of the world.

This passage identifies a number of features regarding the revelation written into the fabric of nature. First, the creation is active. The repeated use of active verbs in the psalm underlines this aspect of the physical world. The heavens "declare," the skies "proclaim," both "pour forth" and "display," and their voice "goes out." Second, this activity flowing from the creation is intelligible. Terms associated with intelligent communication characterize the revelation in nature--"speech," "language," "knowledge," "voice," and "words." Third, the creation's message is incessant. It is heard constantly "day after day" and "night after night," throughout time. Fourth, this cosmic revelation is universal. Like the non-verbal essence of music, "there is no voice or language where their voice is not heard," it travels "into all the earth," and to "the ends of the world." Finally, the testimony inscribed deeply into the cosmos is Divine or transcendent in character. It "declares the glory of God" and "proclaims the work of his hands." In brief, the creation points to an Intelligent Being, the Creator of Nature.

Romans 1: 18-23 essentially repeats these five features of natural revelation expressed in Psalm 19, but it adds a vital spiritual truth:

The wrath of God is being revealed from heaven against all the godlessness and wickedness of men who suppress the truth by their wickedness, since what may be known about God is plain to them, because God has made it plain to them. For since the creation of the world God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made, so that men are without excuse. For although they knew God, they neither glorified him as God nor gave thanks to him, but their thinking became futile and their foolish hearts were darkened. Although they claimed to be wise, they became fools and exchanged the glory of the immortal God for images made to look like mortal man and birds and animals and reptiles.

The creation judges. The clear and intelligible message present in nature is such that humanity is accountable and "without excuse" regarding its

profound consequences. Moreover, Romans underlines the epistemological impact of sin as it relates to intelligent design. In particular, a lack of gratitude undergirds this violation of the Second Commandment and fall into idolatry, leading ultimately to cognitive dysfunction (Pope 1998: 321-24).

Nowhere in Psalm 19 or Romans 1 is there any mention of Paley's belief that intelligent design is static and associated with the perfect adaptability of each and every detail in the world. Similarly, these classic Scripture passages affirming natural revelation do not conflate design with divine interventionist action in origins, as defended by proponents of the ID Movement. Hence, the design arguments proposed by William Paley and ID theorists are un-Biblical.

DARWIN ON INTELLIGENT DESIGN

Charles Darwin studied at Christ College, Cambridge (1828-1831), where his mind was cast within the scientific categories of the early nineteenth century. He accepted that the earth was old, though catastrophism still played a part in geology to understand surface features. He also believed in the immutability of species, maintaining that God intervened to create life at different points in geological history (Bowler 1990: 40-52; Desmond & Moore 1991: 84-97). Darwin boarded HMS Beagle with these notions on 27 December 1831. He also embarked with Volume I of Charles Lyell's Principles of Geology (1830). First-hand field experience in South America soon led Darwin to embrace uniformitarian geology. However, uniformitarianism did not extend to his biology. Late in his voyage, he was still an anti-evolutionist and accepted Paley's notion of "the fitness which the Author of Nature has now established" (Herbert 1974: 233). Nine months before returning to England, Darwin's interventionist understanding of biological origins remained, as he records: "One hand has surely worked throughout the universe. A Geologist perhaps would suggest that the periods of Creation have been distinct & remote the one from the other; that the Creator rested in his labor" (in Barlow 1986: 348). This progressive creationism was not an unusual understanding of origins, since it was widely held throughout the scientific community at that time.

The last entry of Darwin's Beagle Diary, on 24 September 1836, displays clearly his acceptance of intelligent design in nature and its Divine inference: "Amongst the scenes which are deeply impressed on my mind, none exceed in sublimity the [Brazilian] primeval forests . . . [for they] are

temples filled with the varied productions of the God of Nature. No one can stand unmoved in these solitudes, without feeling that there is more in man than the mere breath of his body" (in Barlow 1986: 388). Many features of the Biblical understanding of intelligent design are expressed in this passage. First, the creation is active. The forests of Brazil "deeply impressed" upon Darwin and "moved" him. Second, this activity in nature is intelligible. The creation's "sublimity" powerfully impacted his "mind," and gave him a "feeling" or non-verbal message regarding humanity's place in the cosmos. Third, this experience of the creation is universal. Darwin contended that "no one" could stand before nature without being struck by it. Finally, the message inscribed into the fabric of the world is Divine or transcendent in character. The creation revealed to Darwin that he was "more" than a mere physical reality, and ultimately nature pointed to its teleological foundation, the "God of Nature."

In the two years immediately following the Beagle voyage, Darwin entered his first period of intense theological reflection, which he describes as a time he "was led to think much about religion" (in Barlow 1958: 85). It was also at this time that he formulated his theory of biological evolution. To be sure, evolutionary theory has significant religious implications, and Darwin was certainly aware of it. In the course of formulating his science, he developed a theology alongside. During this reflective period, Darwin rejected his nominal Christian faith. He dismissed the Old Testament because of its "manifestly false history of the world" in the Book of Genesis, and he spurned New Testament miracles, since "the men at that time were ignorant and credulous to a degree almost incomprehensible by us" (in Barlow 1958: 85-86). In Darwin's words, "I came to disbelieve in Christianity as a divine revelation Disbelief crept over me at a very slow rate, but was at last complete. The rate so slow that I felt no distress, and have never since doubted even for a second that my conclusion was correct" (in Barlow 1958: 86-87).

Although Darwin rejected the God of Christianity, he remained a firm believer in both the reflection of intelligent design in nature and the existence of the Creator. During this formative two-year period in the late 1830s, he drafted a theory on the origin of life that did not require dramatic Divine interventions, and based his model entirely on providential natural laws. His evolutionary model included humanity, and it even declared God's glory, as excerpts from Darwin's notebooks reveal:

Astronomers might formerly have said that God ordered each planet to move in its particular destiny—In the same manner God orders each animal with certain form in certain country. But how much more simple & sublime power [to] let attraction act according to certain law; such are inevitable consequences; let animals be created, then by the fixed laws of generation Man in his arrogance thinks himself a great work worthy of the interposition of a deity, more humble & I believe truer to consider him created from animals (in De Beer 1960: 101-06).

Darwin concludes in his notebooks that: "Those who argue, make the mistake as does that philosopher who says the innate knowledge of creator has been implanted in us (individually or in race?) by a separate act of God, & not as a necessary integrant part of his most magnificent laws, which we profane in thinking not capable to produce every effect of every kind which surrounds us" (in Gruber 1974: 292). According to Darwin, not recognizing God's "sublime power" and the "inevitable consequences" of "his magnificent laws" of evolution was to "profane" the Creator. In sum, Darwinian evolutionary processes, as first conceived, reflect intelligent design and offer a natural revelation of God.

Darwin had sketched his evolutionary theory in the notebooks of the late 1830s, but it would take twenty years before he made this view of origins public, and a dozen more years after that before Victorian England read that humanity was also created through evolution. In 1859, On the Origin of Species was published, and it included seven unapologetic and positive references to the "Creator" (Darwin 1859: 186, 188, 189, 413 twice, 435, 488). Darwin firmly rejected the interventionist view of biological origins held by most scientists in his day. Instead of progressive creation, he argued for a providential understanding of Divine action in the creation of life:

Authors of the highest eminence seem to be fully satisfied with the view that each species has been independently created. To my mind it accords better with what we know of the laws impressed on matter by the Creator, that the production and extinction of the past and present inhabitants of the world should have been due to secondary causes like those determining the birth and death of the individual (Darwin 1859: 488).

Arguing masterfully, Darwin appeals to the common understanding that Divine creative action for each individual in womb is providential rather than

interventionist. That is, human embryology does not envision interruptive Divine acts to attach a nose, ear, et al. Similarly, in the creation of all life collectively, Darwin defended that evolution could be seen as a process ordained by the Creator. According to the *Origin of Species*, the embryological and evolutionary laws were providential.

Darwin also implies the revelatory character of biological evolution. The famed last sentence in the *Origin of Species* states: "There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone on cycling according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved" (Darwin 1859: 490). ² Interestingly, the theology in this sentence is even more specific in the second edition in 1860, up until the sixth and last, in 1872. Darwin adds "by the Creator," after the words "originally breathed" (Peckham 1959: 759). In Darwin's vision of 1859, the evolution of life declared a world with "grandeur," and the "most beautiful and most wonderful" living forms proclaimed the work of the Creator's hands.

Soon after the publication of the Origin of Species, Darwin entered a second period of intense theological reflection. The notion of intelligent design in nature was the central issue, and a violent clash erupted in his mind that led to much confusion and frustration. On one hand, Darwin continued to be impacted by nature's beauty and complexity, leading him to believe in the existence of a Creator. On the other hand, his conception of intelligent design was still entrenched in the categories of Paley-each and every detail in Creation had some specifically designed purpose. Therefore, Darwin was trapped between his experience of nature as affirmed by the Biblical understanding of intelligent design and the nineteenth-century conception of design which was conflated with a static and perfectly adapted world.

Darwin's conflict over intelligent design appears in a series of letters in 1860 and 1861 with leading botanist Asa Gray at Harvard University. Gray (1861) was the first to popularize biological evolution in America, and being a devout Christian, he argued that this scientific theory did not inevitably undermine faith. As Darwin acknowledged to Gray, "I certainly agree with you that my views are not at all necessarily atheistical" (in F. Darwin 1888, II: 311-12). However, intelligent design was more problematic, and he confesses that: "This is always painful to me. I am bewildered. I

had no intention to write atheistically. But I own I cannot see as plainly as others do, and as I should wish to do, evidence of design and beneficence on all sides of us... On the other hand, I cannot anyhow be contented to view this wonderful universe, and especially the nature of man, and to conclude that everything is the result of brute force" (in F. Darwin 1888, II: 311-12). Certainly, "evidence of design and beneficence on all sides of us" was Paley speaking. And "this wonderful universe" was the Creator's non-verbal revelation impacting Darwin and leading him away from a dysteleological worldview founded only on "brute force." Thus, Darwin was trapped in a false dichotomy between his Paleyan conception of design and his experience of the reality that nature "declares the glory of God."

This intellectual-spiritual dynamic is seen in another 1860 letter to Gray. Darwin's failure to identify his Paleyan assumptions continued to fuel a conflict between his conception and experience of intelligent design, producing more confusion and frustration: "I grieve to say that I cannot honestly go as far as you do about Design. I am conscious that I am in an utterly hopeless muddle. I cannot think that the world, as we see it, is the result of chance; and yet I cannot look at each separate thing as the result of Design Again, I say I am, and shall ever remain, in a hopeless muddle" (in F. Darwin 1888, II: 353; emphasis added).

Once more, the Paleyan notion of perfect adaptability informed Darwin's conception of design. Accordingly, design was to be found in "each separate thing." But again, Darwin's firsthand experience of nature affirmed the reality of design because he "cannot think that the world, as we see it, is the result of chance." His category set trapped him in a frustrating impasse. Near the end of his correspondence with Gray on design, the frustration continued, as Darwin writes: "With respect to design . . . I am in thick mud; the orthodox would say in fetid, abominable mud; yet I cannot keep out the question. My dear Gray I have written a deal of nonsense" (in F. Darwin 1888, II: 382). He could not keep the question of design out of his mind because as a scientist investigating the physical world directly he was impacted daily by the creation's universal and transcendent revelation. But regrettably, Darwin's conception of intelligent design in Paleyan categories led him to misunderstand the non-verbal revelation graciously inscribed in nature by the Creator.

Through the rest of the 1860s, Darwin continued to labor under the yoke of Paley's perfect adaptability. Unwittingly, he conflated this view of

design in each and every corner of the universe with biological variation, setting up another false dichotomy. His writings during this period are characterized by this categorical error and marked by the use of the word, "each," in his understanding of design. In an 1861 letter to Julia Wedgewood, the conflict between the revelatory power of nature and his Paleyan interpretation of variation is evident:

The mind refuses to look at this universe, being what it is without having been designed; yet, where one would most expect design, viz. in the structure of a sentient being, the more I think on the subject, the less I can see proof of design. As Gray and some others look at each variation, or at least at each beneficial variation (which A. Gray would compare with the rain drops which do not fall on the sea, but on to land to fertilize it) as having been providentially designed (in F. Darwin 1888, I: 313-14).

Darwin's entrapment within Paleyan categories and their conflation to biological variation is clear in this passage by his misrepresentation of Gray's rain drop metaphor. Gray actually wrote: "The whole animate life of a country depends absolutely upon the vegetation, the vegetation upon the rain. The moisture is furnished by the ocean, is raised by the sun's heat from the ocean's surface, and is wafted inland by winds. But what multitudes of rain-drops fall back into the ocean-are as much without a final cause as incipient varieties which come to nothing! Does it follow that the rains which are bestowed upon the soil with such rule and average regularity were not designed to support vegetable and animal life?" (in J. Gray 1893: 157). Thus, Gray had a "high" and "wide" view of design, and not a "narrow" Paleyan understanding of it in each and every corner of the world. Darwin's misrepresentation of Gray's rain drop metaphor underlines the consequence of misconceiving intelligent design. It opens the way for the rejection of natural revelation.

Further evidence of Darwin's conflation of Paleyan design with biological variation appears in writings during the decade after his correspondence with Gray. In Variation of Animals and Plants Under Domestication, he attempts to offer a methodological argument against design by implying it would undermine science:

If we assume that each particular variation was from the beginning of all time preordained, then that plasticity of organization, which leads to many injurious deviations of structure, as well as the redundant power of reproduction which inevitably leads to a struggle for existence, and, as a consequence, to the natural selection or survival of fittest, must then appear to us superfluous laws of nature (Darwin 1868, II: 428).

In 1870, Darwin's frustration over the issue of design peaks in a letter to J. D. Hooker. Still ensnared in his Paleyan interpretation of biological variation, and continuing to misrepresent Gray's rain drop metaphor, he writes:

My theology is a simple muddle; I cannot look at the universe as the result of blind chance, yet I can see no evidence of beneficent design, or indeed of design of any kind, in the details. As for each variation that has ever occurred having been preordained for a special end, I can no more believe in it than that the spot on which each drop of rain falls has been specially ordained (in F. Darwin 1903, I: 32).

Darwin was loathe to accept a dysteleological universe produced by "blind chance," since the revelatory impact of nature upon him was too powerful. Yet his design categories were thoroughly Paleyan, as intelligent design was understood to be in each and every variation in nature. Darwin was forever trapped in a false dichotomy.

During the early 1870s, some resolution came to Darwin's troubled mind and soul. He finally recognized that Paleyan categories had subconsciously shaped his scholarship throughout most of his career. In the Descent of Man, he confesses: "I was not able to annul the influence of my former belief, then almost universal, that each species had been purposely created; and this led to my tacit assumption that every detail of structure, excepting rudiments, was of some special, though unrecognized, service" (Darwin 1871: 61). As a consequence, Darwin shed his Paleyan categories and then confidently proclaimed five years later: "The old argument from design in Nature, as given by Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered" (in Barlow 1958: 87). Paleyan design would no longer be a stumbling block However, the reality of intelligent design in nature, as understood in Biblical categories, continued to impact the famed father of evolutionary theory as revealed in his writings right up until the final year of his life in 1882.

Darwin's mature theological views appear in his Autobiography, in a section entitled: "Religious Belief." There he examines and evaluates two arguments for God's existence, and the notion of intelligent design is central

to both. In the first, Darwin affirms what he terms is a "religious" sentiment:

At the present day the most usual argument for the existence of an intelligent God is drawn from the deep inward conviction and feelings which are experienced by most persons . . . Formerly I was led by feelings such as those just referred to . . . the firm conviction of the existence of God, and of the immortality of the soul. In my Journal I wrote that whilst standing in the midst of the grandeur of a Brazilian forest, "it is not possible to give an adequate idea of the higher feelings of wonder, admiration, and devotion which fill and elevate the mind." I well remember my conviction that there is more in man than mere breath of his body (in Barlow 1958: 90-91).

However, Darwin dismisses this experience as merely psychological. He asserts, "But now the grandest scenes would not cause any such convictions and feelings to rise in my mind. It may be truly said that I am like a man who has become colour-blind, and the universal belief by men of the existence of redness make my present loss of perception of not the least value of evidence" (in Barlow 1958: 91). From Darwin's perspective, this universal "religious sentiment," sensed by "most persons," is not a reasonable argument for the existence of "an intelligent God."

In the Autobiography's second argument for the existence of God, Darwin's appreciation for intelligent design in nature is more rational and substantive:

Another source of conviction in the existence of God, connected with the reason and not with the feelings, impresses me as having much more weight. This follows from the extreme difficulty or rather impossibility of conceiving this immense and wondrous universe, including man with his capacity of looking backwards and far into futurity, as a result of blind chance or necessity. When thus reflecting I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man; and I deserve to be called a Theist (in Barlow 1958: 92-93).

The impacting power of the "wondrous universe" and its Divine message is clearly seen in this passage. Darwin recognized the logical implication of nature's revelation. It is impossible to believe that the universe is dysteleological. Moreover, sensitive Darwin scholars note the present tense of the verb, "feel," in the final sentence of this passage (Brown 1986: 28). That is, in 1876, late in his life, Darwin felt pressed to look for a "First

Cause with an intelligent mind," and he even argued that it was fitting to be called a "Theist" when thinking in this manner. ³

But like the first intelligent design argument for God's existence, Darwin has a rebuttal. He claims that though this belief in design was "strong" at the time he wrote the *Origin of Species*, it "has very gradually with many fluctuations become weaker" (in Barlow 1958: 93). More specifically, Darwin was deeply troubled in accepting this argument, since "the horrid doubt" arises, as he states, "Can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animal, be trusted when it draws such grand conclusions?" (in Barlow 1958: 93). Consequently, Darwin asserts that this powerful and rational argument for God's existence is not trustworthy. One might comment: Is he not using a mind "evolved from lower forms" to argue this "grand conclusion?" If so, Darwin appears to suffer from self-referential incoherence.

The conclusion Darwin draws in his Autobiography is that, though intelligent design arguments for the existence of God seem persuasive, they ultimately fall short. His analysis of design contributes significantly to his embracing of religious agnosticism. In the end, Darwin confesses, "I cannot pretend to throw light on such abstruse problems. The mystery of the beginning of all things is insoluble by us; and I for one must be content to remain an Agnostic" (in Barlow 1958: 94).

Interestingly, Darwin's firm agnosticism expressed in the Autobiography appears to weaken during the final years of his life. In an 1879 letter addressed to James Fordyce, he writes:

What my own views may be is a question of no consequence to any one but myself. But, as you asked, I may state that my judgment often fluctuates.... In my most extreme fluctuations I have never been an Atheist in the sense of denying the existence of a God. I think that generally (and more and more as I grow older), but not always, that an Agnostic would be the more correct description of my state of mind (in F. Darwin 1888, I: 304).

This personal letter was written two years before Darwin's death in 1882, and he states quite explicitly that he has "never been an Atheist in the sense of denying the existence of God." Therefore, Darwin throughout his professional career never embraced an atheistic or dysteleological view of

biological evolution. Moreover, it follows from this passage that if he has "never been an Atheist," and that over time he has become "generally, but not always" an agnostic, then there must be periods late in his life when he was either a theist or deist. The reason for Darwin's "not always" belief in God is undoubtedly due to the impact of nature's intelligent design upon him. Evidence for this appears during the last year of his life in a conversation with the Duke of Argyll who recalls:

I said to Dr. Darwin, with reference to some of his own remarkable works on the "Fertilization of Orchids" and upon "The Earthworms," and various other observations he made of the wonderful contrivances for certain purposes in nature--I said it was impossible to look at these without seeing that they were the effect and the expression of mind. I shall never forget Mr. Darwin's answer. He looked at me very hard and said, "Well, that often comes over me with overwhelming force; but at other times," and he shook his head vaguely, adding, "it seems to go away" (in F. Darwin 1888, I: 316).

This is a revealing passage for one who only five years earlier in his Autobiography had claimed to have become "colour-blind" to the revelatory message in nature, and that "the grandest scenes would not cause any such convictions and feelings to rise in my mind."

Darwin's confession to the Duke of Argyll is a powerful piece of evidence that argues for the reality of a Biblical understanding of intelligent design. This passage reflects the five features of natural revelation shared in Psalm 19 and Romans 1. First, the creation is active--it struck Darwin with "overwhelming force." Second, the creation's message is intelligible--it reflects "the effect and the expression of mind." Third, natural revelation is incessant--it impacted Darwin "often." Fourth, this cosmic message is universal--it is "impossible to look at" nature's beauty and complexity without seeing design. Finally, the testimony inscribed deeply into the world is Divine or transcendent in character-it points to the "mind" of a Creator. In the conversation with the Duke, Darwin claimed that reflections of intelligent design "seem to go away." But did they? Or, is it that intelligent design is like Jesus Who stands at the door knocking and awaiting for us to open it, so that He can enter and sup with us (Rev 3: 20)? This knocking sound of natural revelation can be lost in the background of life's activities. But in those moments of solitude and reflection it appears the knocking of intelligent design on the door of Darwin's soul and mind never left.

RESTORING HUMAN FELICITY

Postmodernity has undermined traditional values and human felicity. No longer can anyone speak of true morality or the unicity of humanity. In particular, Western culture is in the depths of an epistemological crisis. The human ability to know has been cut adrift and is tossing about in a sea of pluralistic truth and personal beliefs (Middleton & Walsh 1995: 65-71; Plantinga 2000: 422-57). Yet despite the excesses of postmodernity, it has served a positive role in challenging the naive logical positivism in the first half of the twentieth century. The task for theists today is to find a modus vivendi between these epistemological extremes.

During the last one hundred and fifty years, science, and evolutionary biology in particular, have called into question the place of humanity in the cosmos. The traditional Judeo-Christian picture of men and women being created in God's Image is now spurned as sorrowfully anthropocentric. With the overwhelming success of the scientific method, a new creation-myth emerged in the mid-twentieth century as typified by Bertrand Russell in "Free Man's Worship":

The world which Science presents for our belief: That Man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and beliefs, are but the outcome of accidental collocations of atoms... that all the labours of the ages, all the devotion, all the inspiration, all the noonday brightness of human genius, are destined to extinction in the vast death of the solar system... all these things, if not quite beyond dispute, are yet so nearly certain, that no philosophy which rejects them can hope to stand (1961: 67).

Clearly, Russell's confidence casts a dark dysteleological shadow on the meaning of the human condition. However, the professionalization of the history and philosophy of science into an academic discipline at about the same time was quick to challenge this naive positivist epistemology. As Ian Hacking notes, "Philosophers long made a mummy of science. When they finally unwrapped the cadaver and saw the remnants of an historical process of becoming and discovering, they created for themselves a crisis of rationality. That happened around 1960" (1983: 1). Regrettably, early attempts to solve this epistemological dilemma degenerated into postmodern anti-realisms such as falsificationism (Popper 1961), historicism (Kuhn 1970), and anarchism (Feyerabend 1975).

In response to the anti-realistic approaches to science, the rapid growth of science-religion dialogue within the modern academy during the last twenty years offers a breath of life reviving human felicity and the ability to know (Easterbrook 1997; Larson & Witham 1997). The lineaments of a new and more robust epistemology are arising under the rubric of "critical realism." In addition, leading scholars like Ian Barbour (1997), John Haught (1995), Allister McGrath (1998), Paul Davies (1992), and John Polkinghorne (1989) cautiously include the notion of intelligent design in their theories of knowledge. This updated approach to natural theology and its implication for humanity's place in the cosmos is central to John Barrow and Frank Tippler's classic, *The Anthropic Cosmological Principle*:

Over many years there had grown up a collection of largely unpublished results revealing a series of mysterious coincidences between the numerical values of the fundamental constants of Nature. The possibility of our existence seems to hinge precariously upon these coincidences. These relationships and many other peculiar aspects of the Universe's make-up appear to be necessary to allow the evolution of carbon-based organisms like ourselves. Furthermore, the twentieth-century dogma that human observers occupy a position in the Universe that must not be privileged in any way is strongly challenged by such a line of thinking. Observers will reside only in places where conditions are conducive to their evolution and existence: such sites may well turn out to be special (1986: xi).

In sum, the universe appears to be anthropic. It seems intentionally designed for the emergence of humanity. Moreover, Barrow and Tippler affirm that humans have the epistemological capacity to grasp such a metaphysical foundation. Ironically, the use of science to attack human felicity during the mid-twentieth century is now being recast to argue for the "privileged" and "special" nature of men and women.

In a subtle manner, Darwin's story affirms human felicity. Throughout most of his life, the famed evolutionist wrestled with intelligent design. Alas, this concept in the nineteenth century was conflated to Paley's static understanding of design, leading inevitably to a conflict with the dynamic process of biological evolution. But Darwin could not rid himself of the belief that the "immense and wondrous universe" was "the effect and the expression of mind." In these religious reflections, he unwittingly rooted human epistemology in a teleological foundation. It was impossible to envision humanity's "capacity of looking backwards and far into futurity" through a dysteleological metaphysic. Even in his most agnostic moments,

with questions regarding the trustworthiness of his own evolved mind, Darwin never succumbed to atheism. Intelligent design in nature remained for this biologist a mooring to which he intermittently secured his metaphysic and epistemology.

The historical literature reveals that the conflict between Paleyan categories and evolutionary biology were a primary source that led to Darwin's admitted fluctuations between his agnosticism and theism (better: deism). However, recent studies speculate that another significant factor, scantily seen in the written record, impacted Darwin's beliefs as greatly, if not more-personal pain and suffering. Within a few years after returning from the Beagle voyage, illness transformed the young adventurer into someone who feared leaving his home. For the rest of his life, Darwin suffered from "bouts of nausea, insomnia, chest pain, skin problems, dizziness, abdominal stress, vomiting, palpitations, and flatulence" (Ma 1997: 27). Diagnoses include Chagas' disease contracted during the voyage, or a classic case of panic disorder. But more powerfully, some speculate, the pain from the bitter and tragic death of his 10 year old daughter, Annie, in 1851, destroyed any faith Darwin had in a personal God (Moore 1989: 195-229; Desmond & Moore 1991: 375-87; Keynes 2001). As Hans Kung recognizes, the problem of evil is the greatest challenge to theism, and it remains the steadfast "rock of atheism" (1976: 432).

Yet history records in Darwin's own words: "I have never been an Atheist in the sense of denying the existence of a God." What held him back from embracing the common pain and suffering argument for unbelief? In Darwin, design and theodicy meet in a manner reminiscent of the Biblical figure Job. For most of the forty-two chapters in the Book of Job, a defence is made for the popular view of a causal connection between sin and suffering. But in the final chapters, God speaks. His answer to theodicy is non-verbal. The Creator only points to the creation. Thus, God gives an intelligent design argument, and Job then humbles himself, "Surely I spoke of things I did not understand, things too wonderful for me to know" (Job 42: 3). So too, could it be, that by encountering the creation daily in his scientific research, Darwin in a subtle fashion had a Jobian experience? The impact of nature on his soul was too great for him to deny the existence of God. And for those who suffer, who has not found a promise of Divine healing in the sun rising every day?

CONCLUSION

In conclusion, the historical record reveals that Charles Darwin was impacted deeply by the intelligent design in nature. He certainly entertained the possibility that the world was dysteleological, but the beauty and complexity of the creation pushed him away from this conclusion. The experience of design in the cosmos was a powerful factor which held Darwin from ever embracing atheism. It is regrettable that his conceptualization of intelligent design was steeped within Paley's perfect adaptability in each and every corner of the universe. Thus, Darwin was trapped in a false dichotomy between his experiential reality and the intellectual categories he inherited from nineteenth-century culture. The issue of design was "always painful," and it left him "bewildered," and "in an utterly hopeless muddle." The dichotomy led Darwin inevitably to an irreconcilable conflict between science and religion.

Darwin's approach to intelligent design raises some interesting questions. Were Paley's design categories a stumbling block for Darwin in accepting Christianity (2 Cor 6: 2-3)? More specifically, could it be that the nineteenth-century Christian understanding of intelligent design-one saturated in Paleyan static perfectibility--prevented Darwin from fully accepting the Intelligent Designer and pursing a personal relationship with Him? If this is the case, there is a valuable historical lesson. Is it possible that a stumbling block is placed in front of non-Christian scientists by the Intelligent Design Movement with its insistence on interventionist events in the origin of purportedly "irreducibly complex" biological structures? Is this modern form of anti-evolutionism a recycling of a Paley-like vision of design, which led to Darwin's torment of experiencing design but also seeing the overwhelming evidence for evolution? If so, are ID theorists promoting another false dichotomy?

Thanks to advocates like Richard Dawkins, postmodern cultural mythology is fuelled by historically inaccurate proclamations, such as: "Darwin made it possible to be an intellectually fulfilled atheist." Regrettably, Dawkins' "Darwin of unbelief" is often presented in public schools, leading to a false dichotomy which emerges as a conflict between religion and evolutionary science. Since there is no place for the antievolutionism of Christian fundamentalism in publicly-funded classrooms, so too should there be no place for dysteleological proselytization à la Dawkins. The time has come to let the historical record speak for itself.

NOTES:

- There are two basic categories of Divine action: (1) Interventionism is dramatic supernatural activity. For example, prior to the acceptance of Copernicus' view of astronomy, many believed that God moved planets off their normal west-to-east courses causing them to make short east-to-west loops (known as 'retrograde motion'). Darwin rejected this type of Divine action during the late 1830s, when he formulated the theory of biological evolution. (2) Providentialism is God's subtle activity. An example would be the Creator employing natural laws to create life. This is the type of Divine activity Darwin envisioned during this early formative period, and it is clearly included in his famed Origin of Species.
- 2 Darwin at this time failed to recognize his own interventionism in the origin of the first form(s) of life. Interestingly, his modern critic, Michael Behe, seems to reincarnate the famed evolutionist's views on the origin of life. In a way surprisingly similar to the Origin of Species, Darwin's Black Box proposes that the "irreducible structures" of the cell were put together by "one fell swoop" in a "first cell" from which all life evolved (Behe 1996: 39, 227-28). When challenged re the "super cell," Behe responded: "I don't think there had to be a 'super cell.' ID is compatible with a lot of different scenarios for how the information was placed into the system. It could have been present in the initial conditions of the Big Bang or added over time somehow. I mentioned the 'super cell' in my book not to endorse it, but simply to show that the issue of the age of biochemical systems is different from the issue of how they got here. My official position is agnostic: I think we don't have enough information yet to decide how the design was implemented. We do, however, have enough evidence in the ID view to decide that explicit design occurred, and that the random processes envisioned by Darwinism can't cut it" (in Lamoureux 1999: 71-72). Thus, in 1996, Behe argued for the reality of irreducible complexity and claimed that natural processes could not account for its appearance. However, by 1999, he embraces an "agnostic" position, open even to the possibility of a fully evolutionary view of origins beginning with the Big Bang. Cf also Johnson & Lamoureux 1999: 38-39, 103-08.
 - ³ A question arises re Darwin's use of the term "theist" in this passage, when in fact he means "deist." Some support that he employs the term properly is found in this section of the *Autobiography* when he states, "I did not think much about the existence of a personal God until a considerably later period of my life" (in Barlow 1958: 87). Other than this brief comment, the historical record indicates that deism best describes Darwin's beliefs when he was in a religious mood.

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